

Question 3

What are the indicators of risk for HIV/AIDS infection in Louisiana?

The persons most likely to become infected with HIV are those who engage in high-risk behaviors and who live in communities where HIV prevalence is high. To help community planning groups understand the differing risks for HIV infection in Louisiana, this section examines the trends and characteristics of populations that practice high-risk behaviors. The primary focus of this section is 3 high-risk populations: MSM, IDUs, and heterosexual adults. In addition, 2 populations of special interest are examined: perinatally exposed children and persons tested for HIV.

The preceding section addressed the level of HIV infection in various groups affected by HIV. This section examines direct and indirect measures of risk behavior in the groups most at risk of acquiring HIV infection. Direct measures of risk provide information about risk behavior that is directly associated with HIV transmission. Indirect measures do not directly describe HIV risk behaviors; rather, they are indicators of possible HIV risk that may need further investigation. For example, an increase in STD or teen pregnancy rates does not directly indicate that HIV exposure is increasing but may indicate an increase in unprotected sex.

Highlights

- In 2001, 81% of young MSM surveyed in HITS reported having had 4 or more sex partners during the past 12 months. Among all age groups, 54% of MSM reported having 4 or more sex partners.
- Behavioral surveys conducted among MSM indicate high rates of unprotected sex, despite the fact that many MSM are unaware of the HIV status of their casual sex partners.
- Among IDUs surveyed through HITS, 59% reported having shared needles always or some of the time. Needle sharing seems to be more common at younger ages; the age group 18–24 years comprises the largest proportion of IDUs who always share needles (19%) and the smallest proportion, who never share needles (14%).
- Among the 3 risk groups (IDUs, MSM, and heterosexual clients in STD clinics) surveyed in HITS, the rate for *never* using condoms during sex with a casual sex partner was highest for IDUs.
- Behavioral surveys indicate that approximately 40% of persons with 2 or more sex partners did not use a condom during their most recent sexual encounter, and condom use by high-risk populations surveyed through street outreach does not seem to differ from condom use by the general population. Of heterosexual clients in STD clinics, however, 14% of men and 17% of women reported *never* having used condoms during sex with their casual partners.
- Surveillance data indicate that the number of infants born annually to HIV-infected women has increased steadily as more women are living with HIV/AIDS. Currently, 59% of HIV-infected mothers had a diagnosis of HIV infection before they became pregnant. Although some of the pregnancies may represent informed choices by these women, others may represent continued unprotected sexual activity and the need for appropriate prevention interventions.
- In the general population, 36% of persons reported being tested for HIV during the past 12 months. Similarly, a behavioral survey of high-risk populations indicates that 45% were tested during the past year.

MEN WHO HAVE SEX WITH MEN (MSM)

Direct Measures of Risk Behavior

For MSM, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect the risk of acquiring or transmitting HIV infection:

- number of sex partners (Figure 16)
- condom use or unprotected sex (Figures 17 and 18)
- substance use

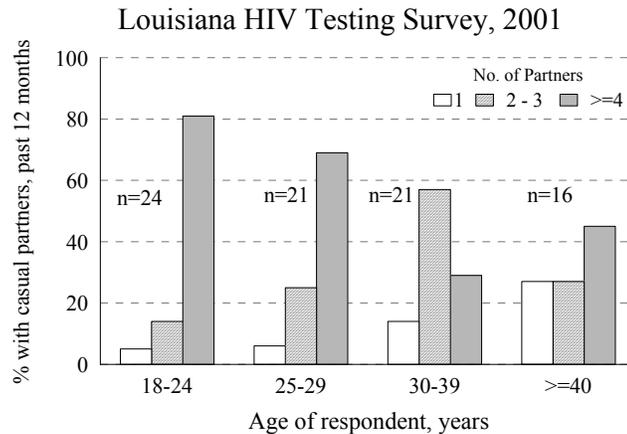
Both HITS and MOS (surveys conducted by prevention outreach workers at gay bars) provide information on the risk behaviors of MSM. HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including MSM, which was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Participants, recruited from gay bars, had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. In addition, to be considered eligible for the MSM risk group, a man must have had sex with another man within the last 12 months. The MOS is a self-administered survey of MSM in gay bars, which was conducted during 1995–2000 by outreach workers from CBOs. The fact that the surveys were conducted in gay bars may limit their applicability to all MSM. However, these surveys do provide valuable information on risk behaviors in a population at high risk for HIV infection. (For a more detailed description of these surveys and their strengths and limitations, see Appendix A.)

Number of Sex Partners

According to both surveys, most of the men interviewed had 3 or more sex partners during the last 12 months (HITS, 54% had 4 or more; MOS, 57% had 3 or more). Of the men interviewed in HITS, 75% reported having had at least 1 casual (i.e., non-primary) sex partner during the last 12 months. Younger MSM tended to have higher numbers of casual sex partners, and the number of casual partners decreased with age (HITS) (Figure 16).

In addition, 45% of the men with at least 1 casual sex partner during the last 12 months were unaware of the HIV status of their most recent partners (HITS). Lastly, according to the MOS, 15% of the men had both male and female sex partners, which means that risk behaviors in the MSM population may also affect the levels of heterosexual transmission.

Figure 16
Casual Sexual Partners Among Men Who Have Sex with Men



Condom Use or Unprotected Sex

Both surveys describe high proportions of men who engage in unprotected sex (Figures 17 and 18). A large proportion of men throughout the state reported having had unprotected receptive anal sex during the past 30 days. Since 1997, a larger proportion of men surveyed in New Orleans, compared with men elsewhere in the state, have reported unprotected sex. The rates of unprotected anal sex may have stabilized in recent years in all areas of the state.

Figure 17
Unprotected Receptive Anal Sex During Past 30 Days, Louisiana

MSM Outreach Survey, 1995-2000

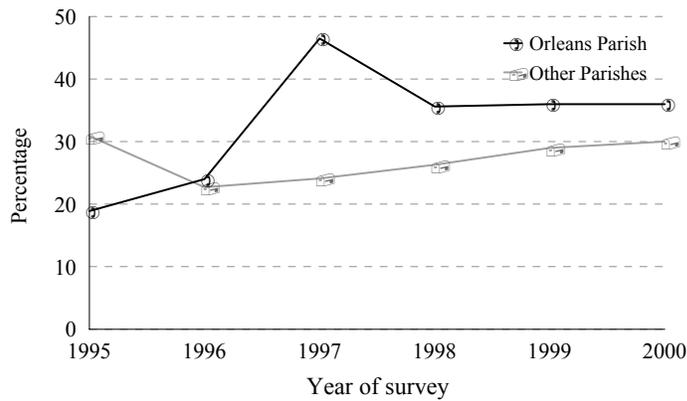
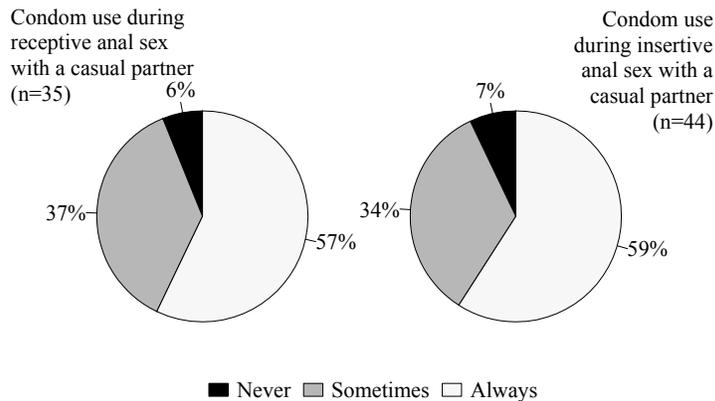


Figure 18
Condom Use Among MSM in Gay Bars

Louisiana HIV Testing Survey, 2001



In HITS, nearly half of the men surveyed did not always use condoms with their casual sex partners (43%, sometimes or never during receptive anal sex; 41%, sometimes or never during insertive anal sex). In MOS, 32% of the men reported having engaged in unprotected receptive anal sex during the past 30 days; 34% had engaged in unprotected insertive anal sex. Although a large proportion of MSM in HITS reported always using a condom during sex with casual partners, 6% to 7% reported never using condoms.

Substance Use

Of the men interviewed in HITS, 59% reported having ever used drugs to get high and having used drugs during the past year. Nearly 1 in 5 (18%) reported having traded money or drugs for sex during the past 12 months.

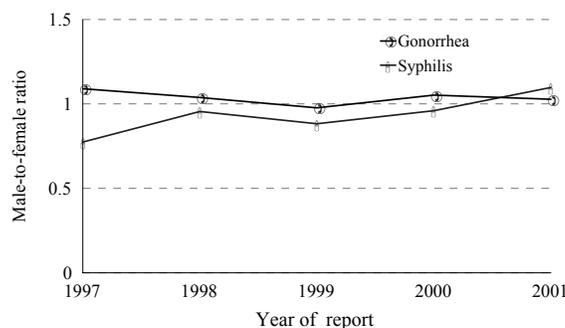
In HITS, 13% of the men reported having ever injected drugs. Of those, 45% (6% of the total) had injected drugs during the past year. (Note: These results are consistent with surveillance data, which show similar levels of injection drug use among MSM: 9% among MSM whose HIV infection was diagnosed in 2001; 16% among MSM living with HIV infection.)

Indirect Measures of Risk Behavior

Among MSM, STD surveillance data may provide information about the potential occurrence of high-risk behavior.

One indirect measure that can indicate increasing rates of infections among MSM is the male-to-female ratio of gonorrhea or syphilis in a particular area. In Louisiana, during 1997–2001, the male-to-female ratio of gonorrhea remained stable (Figure 19). The ratio was approximately 1.0 each year (i.e., each year the same number of men and women were reported to have gonorrhea). These data do not indicate an increasing trend in gonorrhea among MSM. The male-to-female ratio of early syphilis increased slightly, from 0.8 in 1997 to 1.1 in 2001 (Figure 19). This increase, although relatively small, may be an early sign of a trend toward more cases of syphilis among MSM.

Figure 19
Trends in Male-to-Female Ratios of STDs
Louisiana, 1997-2001



INJECTION DRUG USERS (IDUs)

Direct Measures of Risk Behavior

Among IDUs, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect risk of acquiring or transmitting HIV infection:

- injection or other substance use (Figures 20 and 21)
- sharing of needles (Figure 22)
- exchange of money or drugs for sex
- number of sex partners (Figure 23)
- frequency of condom use or unprotected sex (Figure 24)

HITS, NHSDA, and YRBSS provide information on risk behavior related to substance use. HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including IDUs, which was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Eligible IDUs were recruited from street locations. They had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. In addition, to be considered eligible for the IDU risk group, a person had to report injection drug use within the past 12 months. NHSDA is an annual nationwide survey designed to collect data on substance abuse patterns and behaviors in the U.S. population aged 12 or older. Youth are oversampled to ensure precise estimates of substance abuse among younger persons. YRBSS is a self-administered questionnaire given to a representative sample of students in grades 9–12 at the state and local levels. In Louisiana, the survey is administered both at the state level and in Orleans Parish public schools; however, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. Because this survey is administered in school, students at highest risk, who may be more likely to be absent from school or to drop out, may be underrepresented in this survey; students in upper grades are more likely not to be in school. (For a more detailed description of each survey and its strengths and limitations, see Appendix A.)

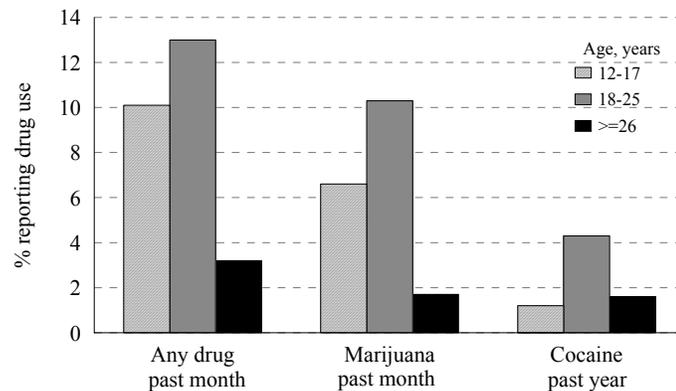
Injection or Other Substance Use

Among the general population in Louisiana interviewed in NHSDA, 5% of persons aged 12 years or older reported having used an illicit drug at least once during the past month. Illicit drugs included marijuana/hashish, cocaine, inhalants, hallucinogens, heroin, and any other prescription-type psychotherapeutic drug used nonmedically. Regardless of the type of illicit drug, drug use was highest among persons 18–25 years of age: 13% reported that they had used illicit drugs during the past month (Figure 20). Reported drug

Figure 20

Substance Use by Age Group, Louisiana

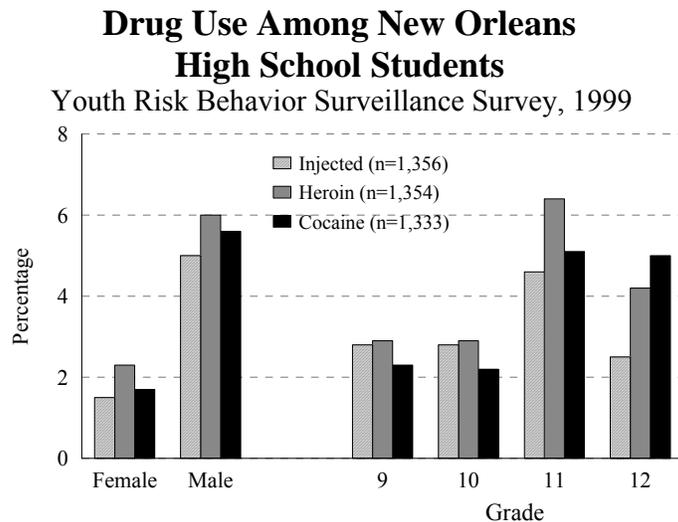
National Household Survey of Drug Abuse, 1999



use was highest in the younger age groups (12–17 and 18–25 years); however, relative to overall drug use, cocaine use seems to be higher in the older age group (≥ 26 years) than in the age group 12–17 years.

The New Orleans YRBS provides additional insight into drug use among high school students (Figure 21). Although the 1999 NHSDA reported that 10% of persons in Louisiana aged 12–17 had used an illicit drug in the past month, the New Orleans YRBSS for that same year reported that 3% had ever *injected* an illicit drug. Experience with injection drugs was higher among male students than among female students. In addition, 4% of students had used heroin at least once, and 4% had used cocaine (any form). More students reported having used heroin, compared with any injected drug or cocaine, at least once.

Figure 21



Drug use seems to increase according to grade level, with the exception of the 12th grade. However, it is important to keep in mind that one limitation of YRBS is that it is administered in school. Because the students at highest risk may be more likely to be absent from school or to drop out, they may be underrepresented, especially among upper grades.

Because injection drug use during the past year was an eligibility requirement for this risk group in HITS, all the participants had injected drugs during the past year. Heroin was the drug most commonly injected (87% of participants [data not shown]). Next was heroin and cocaine together (speedballs; reported by 61%), followed by cocaine (reported by 65%). Of the participants, 22% had injected amphetamines.

Sharing of Needles

In HITS, 59% of IDUs reported having shared needles always or some of the time. Needle-sharing among whites than among blacks (Figure 22). It also seems to be more common in the younger age groups: the largest proportion who always shared (19%) were persons aged 18–24; the smallest proportion who never shared (14%) were also in this age group. Note that these results are limited by small sample sizes.

Exchange of Money or Drugs for Sex

Of the IDUs interviewed in HITS, nearly half (44%) reported having exchanged money or drugs for sex during the past 12 months (data not shown).

Number of Sex Partners

Of the IDUs interviewed in HITS, 83% of the men and 77% of the women reported that they had been sexually active (heterosexual sex) during the last 12 months. More than half of the sexually active persons had had 2 or more sex partners during the past 12 months (62% of women; 56% of men). Four or more sex partners were reported by 39% of the women and 35% of the men. Of the sexually active IDUs, 83% of the women and 72% of the men reported having had at least 1 casual sex partner (Figure 23). Of those with at least 1 casual sex partner, 61% of the males and 50% of the females reported not knowing the HIV status of their most recent sex partner. These results, too, are limited by small sample sizes.

Figure 22

Needle Sharing Among Injection Drug Users Louisiana HIV Testing Survey, 2001

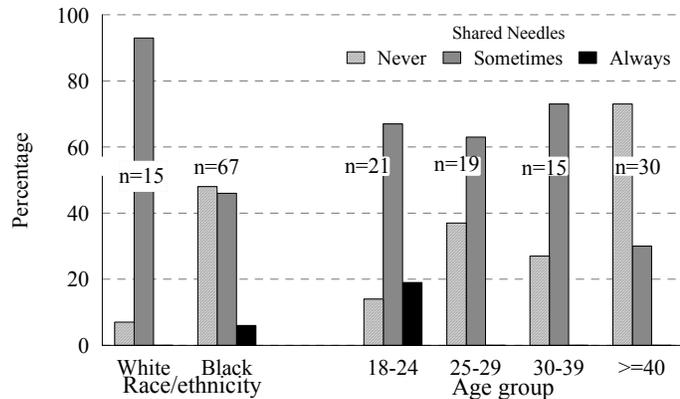
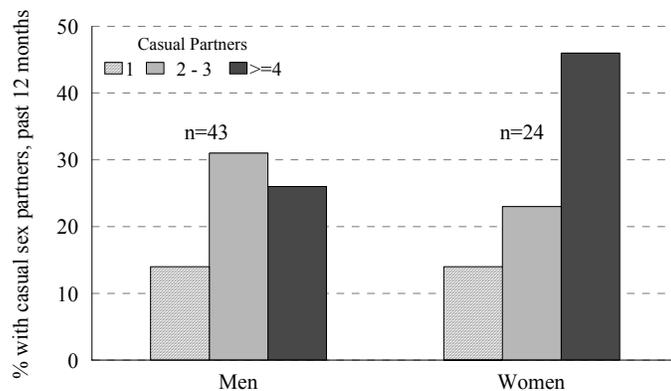


Figure 23

Casual Sexual Partners of Injection Drug Users

Louisiana HIV Testing Survey, 2001



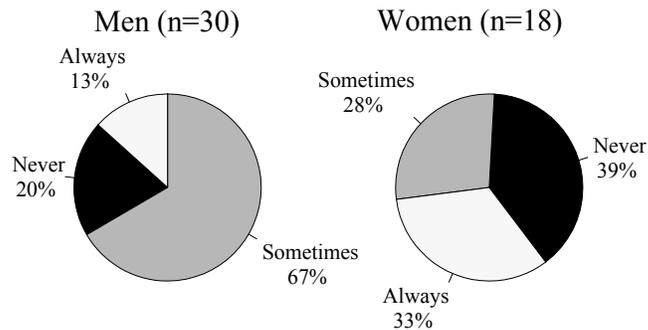
Frequency of Condom Use or Unprotected Sex

Most IDUs in HITS did not always use condoms with their casual sex partners (Figure 24). Sometimes or never using condoms was reported by 87% of the men and 67% of the women. Of the 3 risk groups surveyed in HITS (MSM, IDUs, heterosexual clients at STD clinics), the largest proportions of those who *never* used condoms during sex with a casual partner were IDUs (39% of women; 20% of men). Again, small sample sizes are a limitation.

Figure 24

Condom Use by Injection Drug Users with Casual Sex Partners

Louisiana HIV Testing Survey, 2001



Indirect Measures of Risk Behavior

DAWN and TEDS provide information about the potential occurrence of behaviors related to injection drug use. DAWN is an ongoing national drug abuse surveillance system that monitors visits to hospital emergency departments and deaths attributable to drug abuse, which are reviewed by medical examiners and coroners. In addition, DAWN provides population-based estimates for selected metropolitan areas, such as New Orleans. DAWN estimates for New Orleans provide indicators of current and emerging trends in drug abuse in the city. To be reported to DAWN, a person must be aged 6–97 and show evidence, during an emergency department visit, of intentional abuse or misuse of a drug (intentional abuse includes drug abuse, drug dependence, recreational use, or suicide attempt).

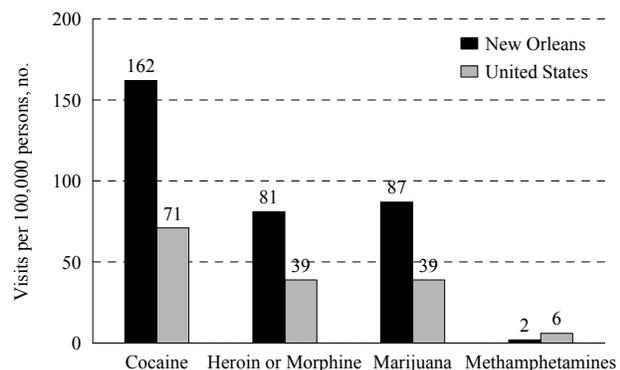
TEDS, which is maintained by SAMHSA, offers another way to indirectly measure the prevalence of injection drug use in Louisiana. For this survey, admissions data for substance abuse treatment are compiled from facilities that receive state and federal funding. Because TEDS is an admission-based system, the admissions may represent multiple admissions of a person within a calendar year. (For more detailed descriptions of DAWN and TEDS, see Appendix A.)

In New Orleans, population-based estimates of drug-related emergency visits during 2000 were higher than national estimates for cocaine, heroin/morphine, and marijuana (Figure 25). In 2000, DAWN reported 162 cocaine-related

Figure 25

Drug Related Emergency Department Visits

Drug Abuse Warning Network, 2000



visits per 100,000 population, 81 heroin or morphine visits per 100,000 population, and 87 marijuana visits per 100,000 population. Compared with 20 other metropolitan areas participating in DAWN, New Orleans ranked 8th for cocaine-related visits and 9th for heroin-related visits.

With the exception of methamphetamine, the rates of visits related to “club drugs” (drugs associated with “raves” and dance clubs) in New Orleans were higher than national estimates. In 2000, the rates of emergency department visits for these drugs in New Orleans ranged from 5.6 for gamma-hydroxybutyrate (GHB), 3.6 for Ecstasy (MDMA), 2.8 for LSD, 2.2 for methamphetamine, to less than 1 per 100,000 for ketamine and Rohypnol (national estimates: 2.0 for GHB, 2.0 for MDMA, 2 for LSD, 5 for methamphetamine, <1 per 100,000 for ketamine and Rohypnol).

In 2001, there were 21,005 substance abuse admissions in Louisiana, of which 21.9% were related to smoking cocaine, 4% to cocaine through another route, and 2% to heroin use. Of the admissions due to smoking cocaine, 62% were among persons 26–40 years of age (Figure 26). Men accounted for two thirds of these admissions.

Heroin-related treatment admissions reported through TEDS were primarily among men (78%). The age distribution of persons admitted for heroin use (Figure 27) was younger than that of persons admitted for cocaine treatment. For example, 38% of heroin admissions were among persons aged 18–25 years compared with only 9% of admissions related to smoking cocaine.

Figure 26
Cocaine (Smoked) Treatment Admissions
by Age Group, Louisiana (n=4,608)

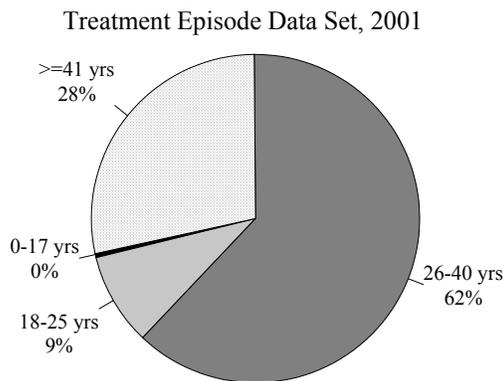
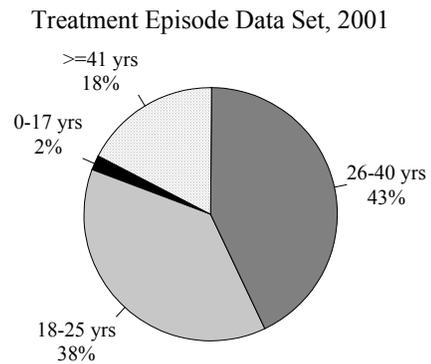


Figure 27
Heroin-related Treatment Admissions
by Age Group, Louisiana (n=428)



HETEROSEXUAL POPULATIONS

Direct Measures of Risk Behavior

Among heterosexuals, the following measures of risk behavior are available in Louisiana to provide important information on factors that may affect the risk of acquiring or transmitting HIV infection:

- number of sex partners and frequency of condom use or unprotected sex (Tables 19 and 20 and Figures 29 and 30)
- substance use, including injection drug use (Figure 31)
- exchanging money or drugs for sex

HITS, BRFSS, SOS, and YRBSS provide information on risk behavior related to sexual activity in heterosexual populations. (For a more detailed description of these data sources, including strengths and limitations, see Appendix A.) HITS is an anonymous, cross-sectional survey of populations at high risk for HIV infection, including heterosexuals, that was conducted in 3 cities in Louisiana (New Orleans, Baton Rouge, and Monroe) in 2001. Eligible heterosexual adults, recruited in STD clinics, had to be at least 18 years of age, able to give informed consent, and residents of the state for at least 1 year. To be eligible for the heterosexual risk group, a person had to have come to the clinic because of a suspected STD, not have been treated for an STD during the past 90 days, not have been at the clinic because of referral or follow-up, and not have had homosexual sex within the past 12 months.

BRFSS is a state-based random-digit-dialed telephone survey that monitors behavioral risks among the general adult population. A sexual behavior module was added to this survey in 1994, 1995, 1996, 1998, and 2000. The questions in this module, which was for adults (aged 18–49), concerned number of sex partners, condom use, and treatment for STDs. Because BRFSS respondents were contacted by telephone, the data are not representative of households that do not have telephones. In addition, BRFSS surveys the general noninstitutionalized adult population in an area, not just the persons at highest risk for HIV/AIDS. This means that the extent of HIV behavioral risk information collected by the BRFSS questionnaire is limited and that inferences can be made only at the state level.

SOS is a self-administered survey conducted each year by CBOs at 3 sites where they actively conduct street outreach. These sites include areas with high rates of HIV/STDs, drug use, or other high-risk behavior. Respondents were asked about sex partners, history of condom use, drug use, HIV testing history, and exposure to prevention programs. These data represent persons at particularly high risk for HIV and are not generalizable to the general population in the local community.

The Youth Risk Behavioral Surveillance System (YRBSS) distributes a self-administered questionnaire to a representative sample of students in grades 9 through 12 at the state and local level. In Louisiana, the survey is administered at the state level and in Orleans Parish public schools; however, only the survey administered to Orleans Parish high school students includes questions related to sexual behavior. In 1999, the survey was conducted in the City of New Orleans school system to obtain information on health behavior and risk behaviors, including sexual behavior and drug-use behavior. Students in New Orleans schools were asked whether

they had sexual intercourse during the past 3 months and whether they had sexual intercourse with 4 or more partners in their lifetime. Respondents who had sexual intercourse within the past 3 months were asked whether they had used a condom during the most recent intercourse and whether they had drunk alcohol or used drugs before the most recent intercourse. Because this survey is administered in school, students at highest risk may be underrepresented because they may be more likely to be absent from school or to drop out of school, especially those in upper grades.

Number of Sex Partners and Frequency of Condom Use or Unprotected Sex

In the general population surveyed by BRFSS, almost all (96%) persons who reported that they had been sexually active at any time during the past 5 years had been sexually active during the past 12 months. Overall, only 13% of the general population aged 18–49 had had 2 or more sex partners during the past year (Table 19). Larger proportions of males (17%), younger age groups (20% among persons aged 18–24), and blacks (19%) had 2 or more sex partners.

Table 19. Sexual risk behavior of persons aged 18–49 years in the general population, Behavioral Risk Factor Surveillance System, 2001

	≥2 Partners, % ^a (n = 862)	Condom use, % ^b (n = 117)
Overall	13	56
Sex		
Male	17	63
Female	10	45
Age group (yrs.)		
18-24	20	55
25-34	16	56
35-44	10	57
≥ 45	6	55
Race/ethnicity		
Black, not Hispanic	19	52
White, not Hispanic	10	56
Other	11	86

^aAll respondents, past 12 months.

^bRespondents with ≥2 partners during past 12 months.

Overall, in BRFSS, 56% of persons with 2 or more partners during the past year had used a condom during their most recent sexual encounter. Condom use was lowest among women (45%) and blacks (52%); however, it did not differ much according to age group.

The percentages of condom use by persons with 2 or more sex partners were similar in BRFSS (56%) and SOS (58%) (Tables 19 and 20). However, females and youth in the SOS reported higher rates of condom use.

In general, high-risk heterosexual behavior (i.e., having 2 or more sex partners during the past 12

months) was nearly 5 times higher in SOS than in BRFSS (60% vs. 13%) (Tables 19 and 20). The differences between BRFSS and SOS in the proportions of groups that reported high-risk heterosexual behavior were greatest among whites (10% in BRFSS vs. 67% in SOS) and females (10% in BRFSS vs. 49% in SOS). Having multiple sex partners was only about 3 times more common among blacks surveyed in SOS than among blacks surveyed in BRFSS. These results indicate that in street outreach programs, specific groups would probably benefit more from specifically focused interventions.

In SOS, condom use among persons with 2 or more sex partners remained stable during 1997–2001 (data not shown).

Table 20. Sexual risk behavior in high-risk populations, Street Outreach Survey, 2001

	≥2 Partners, ^a % (n = 5,655)	Condom use, most recent sex, ^b % (n = 3,359)
Overall	60	58
Sex		
Male	69	61
Female	49	55
Age group (yrs.)		
≤ 19	63	65
20–24	64	57
25–29	68	59
30–34	58	51
≥ 35	47	49
Race/ethnicity		
Black, not Hispanic	59	60
White, not Hispanic	67	51

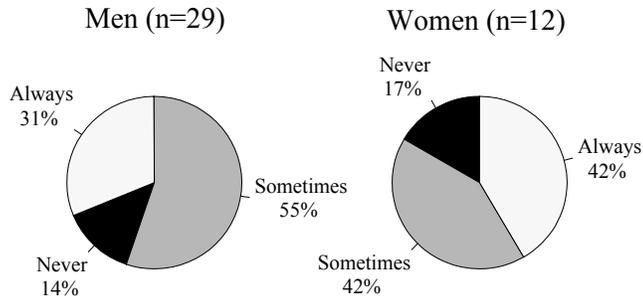
^aAll respondents, past 12 months.

^bRespondents with ≥2 partners during past 12 months.

The women interviewed in HITS (≥ 18 years of age, at STD clinics) seemed to be at greater risk of having had 2 or more sex partners during the past 12 months (67%), compared with those surveyed in SOS (49%). Similar proportions of men in both surveys reported having had 2 or more sex partners (HITS, 69%; SOS, 69%). Of persons in HITS, 17% of the women and 40% of the men had had 4 or more sex partners during the past 12 months. (Data for these HITS results are not shown.)

Of the heterosexuals surveyed in HITS, 67% of the men and 43% of the women reported having had at least 1 casual sex partner during the past 12 months (data not shown). Of those with at least 1 casual sex partner, 20% of the men and 31% of the women reported not knowing the HIV status of their most recent sex partner (data not shown). Moreover, most of the persons interviewed indicated that they did not always use condoms with their casual sex partners (69% of men sometimes/never vs. 59% of women sometimes/never) (Figure 28). Of the STD clinic patients, 14% of men and 17% of women *never* used condoms during sex with their casual partners.

Figure 28
Condom Use with Casual Sex Partners
Among Heterosexuals at STD Clinics
 Louisiana HIV Testing Survey, 2001



Of New Orleans high school students, 24% reported in 1999 that they had had sexual intercourse with 4 or more persons in their lifetime, compared with 15% of high school students nationwide. Reports of 4 or more lifetime partners were 3.4 times higher among male students than among female students (Figure 29). The proportion who had had sexual intercourse with 4 or more partners increased with age, as shown in the linear increase by grade.

Although a higher proportion of New Orleans students (43%), compared with students nationwide (36%), reported having had sexual intercourse during the past 3 months (data not shown) more New Orleans students reported condom use during most recent intercourse (Figure 30). In 1999, more than 60% of female students and 75% of male students said they had used a condom during their most recent sexual intercourse. The largest proportion of condom users was 9th graders (81%); by 12th grade, the proportion declined to 59%. This decline was observed nationally as well.

Figure 29
Percentage of High School Students with 4 or More Lifetime Sex Partners

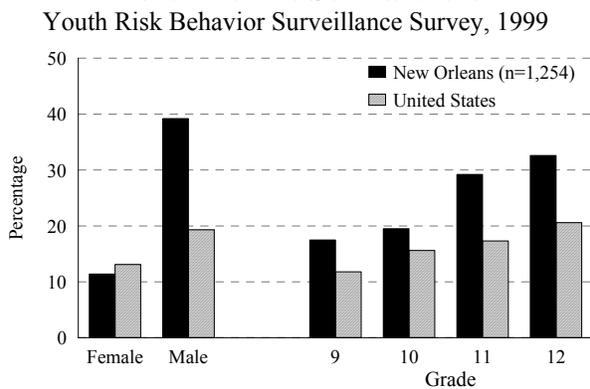
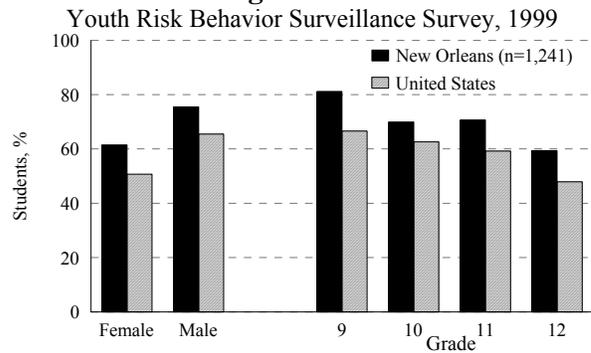


Figure 30
Condom Use During Most Recent Sex Among High School Students Having Sex During Past 3 Months

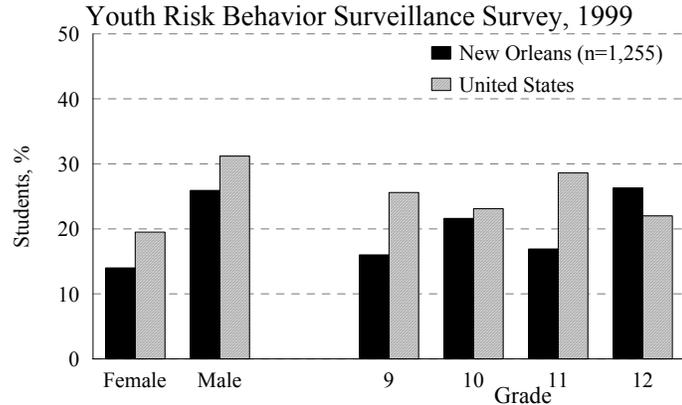


Substance Use

Of New Orleans students who had had sexual intercourse during the past 3 months, 20% reported having drunk alcohol or used drugs before their most recent sexual intercourse. A higher proportion of male students, compared with female students, said that they had drunk alcohol or used drugs before intercourse (26% vs. 14%); however, the proportions of male and female students who reported substance use were 5% lower than the proportions nationwide (Figure 31). The use of substances before sexual intercourse increased from 15% among 9th graders to 26.3% among 12th graders, but the increase did not follow a linear pattern. In addition, although alcohol and drug use were less common among New Orleans students in grades 9–11 compared with national percentages, the proportion of New Orleans 12th graders who reported substance use was larger compared with 12th graders nationwide.

Figure 31

Alcohol or Drug Use Before Most Recent Sex Among High School Students Having Sex During the Past 3 Months



In the HITS study, 43% of respondents reported having ever used drugs to get high; nearly all (97%) also reported that they had used drugs during the past year. A small proportion (4%) reported having injected drugs. Of those with a history of injection drug use, only two thirds were considered current IDUs (i.e., persons who had injected drugs during the past year). Overall, 5% of the respondents reported having exchanged money or drugs for sex during the past 12 months.

Indirect Measures of Risk Behavior

STD surveillance data and vital statistics data on pregnancy rates among teenagers provide information that may help to identify the potential occurrence of high-risk heterosexual behavior. Although increases in STD or teen pregnancy rates do not directly indicate that HIV exposure is increasing, these measures may indicate an increase in unprotected sex.

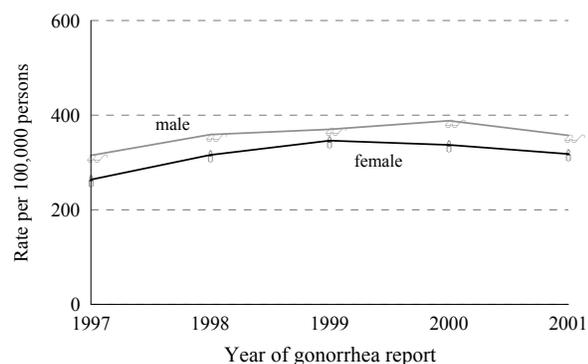
Gonorrhea

During 1997–2001, gonorrhea rates for males were consistently higher than those for females (Figure 32). Rates for both

Figure 32

Trends in Gonorrhea Rates, by Sex

Louisiana, 1997–2001



males and females increased during that period. Although gonorrhea rates for blacks were approximately 25 times greater than those for whites, rates for both groups increased from 1997 through 2001 (Figure 33).

Gonorrhea rates were highest for persons aged 20–29 years, followed by persons aged 13–19 (Figure 34). In 2001, gonorrhea rates were highest in Region 7 (Shreveport), followed closely by Region 1 (New Orleans). Although gonorrhea rates in all regions generally decreased from 2000 to 2001, rates in the New Orleans region seem to be increasing (Figure 35).

Figure 33
Trends in Gonorrhea Rates, by Ethnicity
Louisiana, 1997-2001

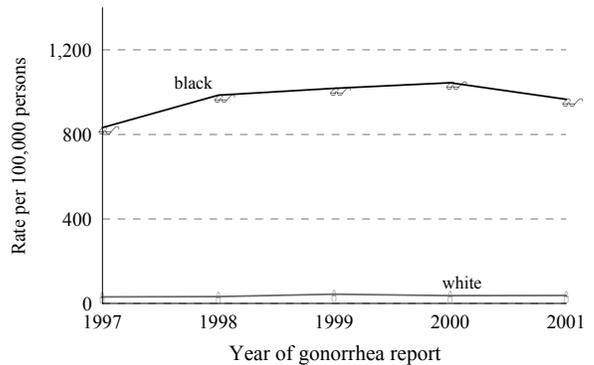


Figure 34
Trends in Gonorrhea Rates, by Age Group
Louisiana, 1997-2001

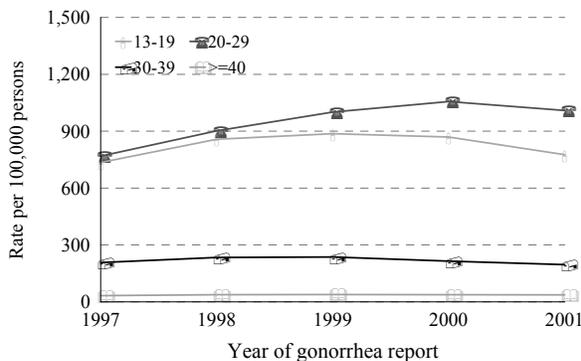
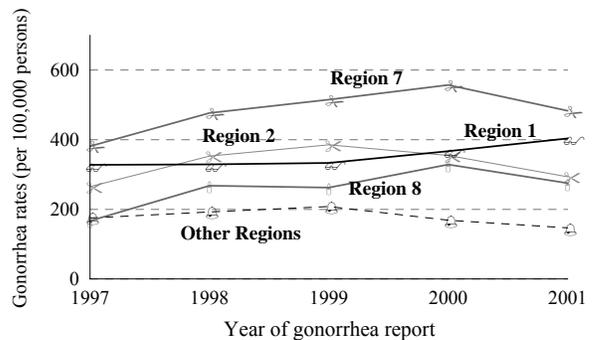


Figure 35
Trends in Gonorrhea Rates, by Public Health Region
Louisiana, 1997-2001

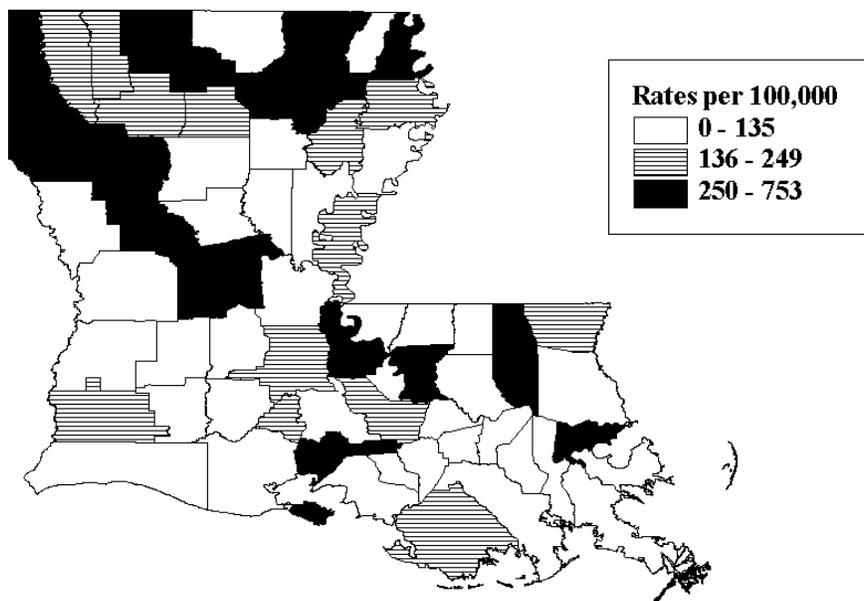


In 2001, new cases of gonorrhea were diagnosed in every parish in the state: 16 parishes had more than 250 new gonorrhea cases per 100,000 persons in the parish (Figure 36).

The Shreveport region had the highest concentration of new gonorrhea cases: 5 of the 9 parishes had more than 250 new cases. Caddo Parish had the highest gonorrhea case rate of all parishes in the state (753 cases/100,000 persons), followed closely by Orleans Parish (715 cases/100,000 persons).

Figure 36

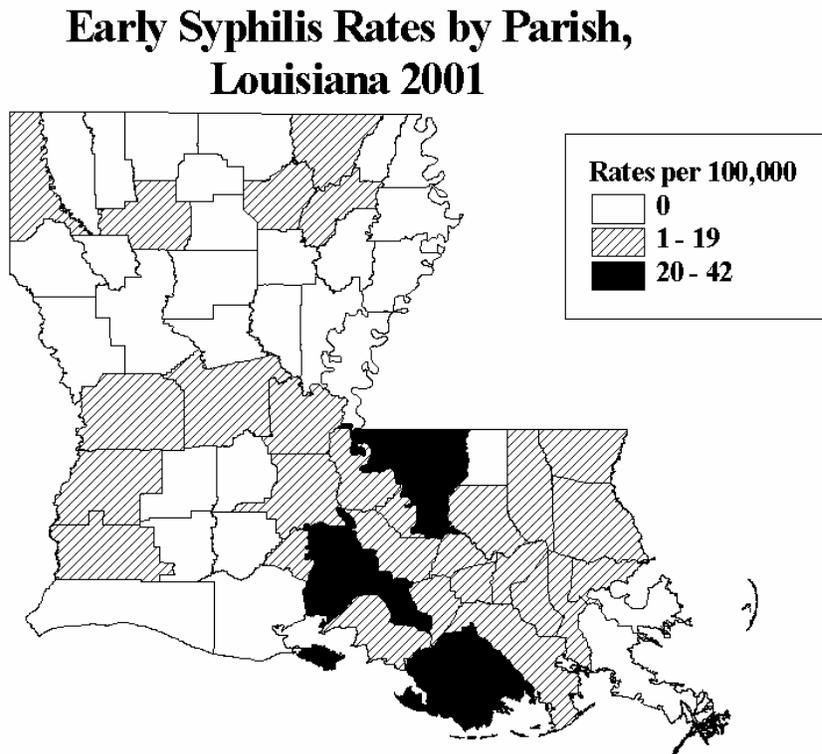
Gonorrhea Rates by Parish, Louisiana 2001



Syphilis

In 2001, a total of 367 persons statewide were reported with early syphilis (primary, secondary, or early latent), which represented a 17% decrease from the number of cases reported in 2000. Cases were reported in 33 of the 64 parishes and were concentrated in the southeastern part of the state. Seven parishes reported more than 20 cases of early syphilis per 100,000 residents (Figure 37).

Figure 37



During 1998–2001, the rates of primary and secondary syphilis were higher for males than for females (Figure 38). However, syphilis rates for males and females have decreased significantly since 1998. This decrease may be due in part to enhanced outreach, screening, and partner notification, which are part of Louisiana's CDC-funded Syphilis Elimination Project.

Figure 38
Trends in Syphilis Rates, by Sex
 Louisiana, 1997-2001

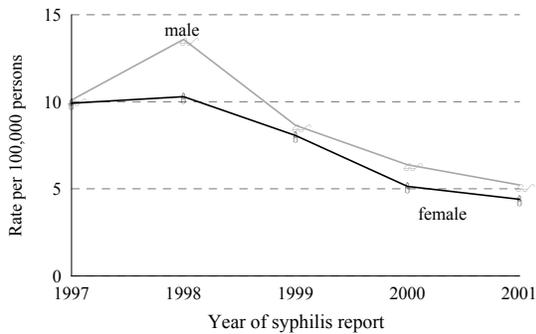
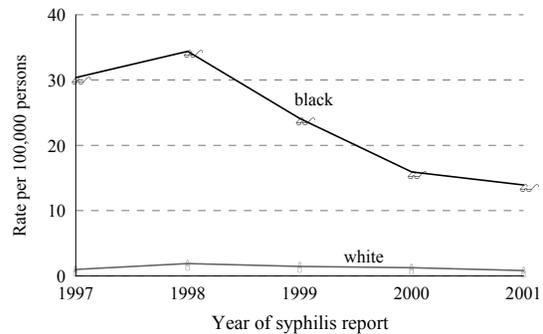


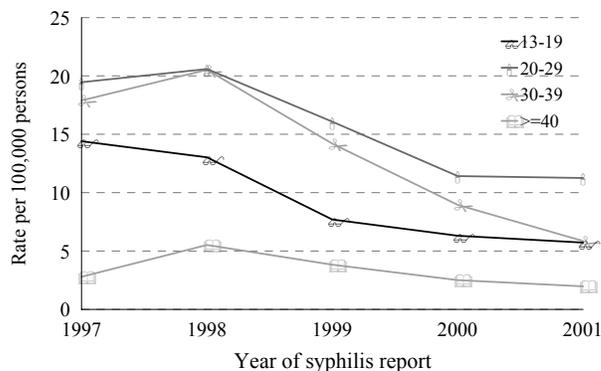
Figure 39
Trends in Syphilis Rates, by Ethnicity
 Louisiana, 1997-2001



Historically, the rates of syphilis in Louisiana have been much higher for blacks than for whites; however, the disparity in rates has narrowed in recent years (Figure 39). In 1997, rates were 31 times higher for blacks than for whites. In 2001, rates were 17 times higher for blacks. Rates in both groups decreased during 1999–2001.

Syphilis rates were highest for persons aged 20–29 years and lowest for persons aged 40 or more. Rates for persons in all age groups decreased from 1998 through 2001 (Figure 40).

Figure 40
Trends in Syphilis Rates, by Age Group
 Louisiana, 1997-2001



Pregnancy Rates for Teenagers

During 1996–2000, overall pregnancy rates for teenagers decreased 6% (data were not available for 2001). However, in 2000, the pregnancy rate of 62.5 per 1,000 in Louisiana was still well above the national rate of 48.5 per 1,000. The pregnancy rate has decreased more for white teenagers (8%) than for black teenagers (5%). Pregnancy rates for black teenagers continue to be twice as high as rates for white teenagers.

PERINATALLY EXPOSED INFANTS

As of December 31, 2001, an estimated 1,577 infants have been born in Louisiana to women with HIV. Of these infants, 16% were infected with HIV perinatally (i.e., through mother-to-child transmission). Each year, perinatal transmission accounts for most of the pediatric HIV cases in Louisiana. In 2001, perinatal transmission accounted for 100% of all HIV cases in children under the age of 13.

The number of infants born annually to HIV-infected mothers has steadily increased as more women are living with HIV/AIDS. In 2001, after delays in reporting were accounted for, approximately 184 HIV-exposed infants were born in Louisiana (Figure 41). Although the numbers of HIV-exposed infants has increased, perinatal transmission rates have decreased (See Figure 12); both of these trends have been due in large part to the increased use of antiretroviral therapy. In 2001, 94% of HIV-positive mothers had received antiretroviral therapy during pregnancy or during labor and delivery. (Note: This percentage may be an overestimate of antiretroviral use because not all cases of HIV exposure have been reported to the Office of Public Health. Cases not yet reported are more likely to be associated with unknown infection status at the time of delivery, hence, with the absence of antiretroviral medications for the mother.)

Nearly half (41%) of the women with HIV who gave birth in recent years have been 20–24 years of age (Figure 42). Almost all (93%) were black.

Figure 41

Antiretroviral Therapy (ART) During Pregnancy or Labor and Delivery

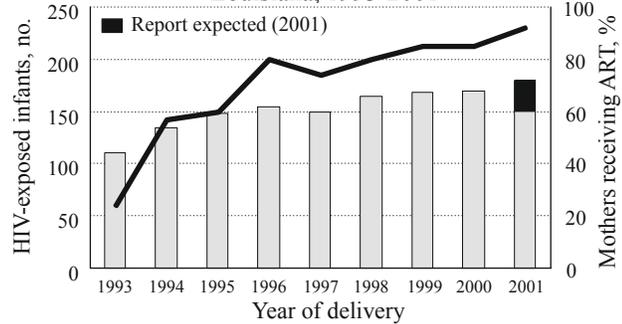
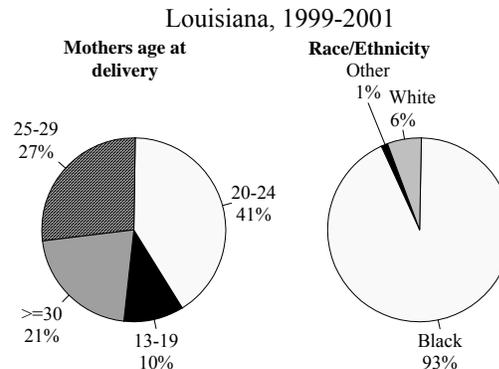


Figure 42

Infants Born to Mothers with HIV Infection, by Age and Race/Ethnicity (N=498)



Among mothers whose mode of HIV exposure has been identified, most had contracted HIV infection through heterosexual activity; approximately 1 in 5 had contracted HIV through injection drug use (data not shown). HIV infection in nearly all mothers (96%) had been diagnosed before delivery, which maximizes the opportunities for antiretroviral intervention (Figure 43).

However, HIV infection had been diagnosed in 59% of the mothers before they became pregnant. Although some of these pregnancies may represent informed choices, others may represent continued unprotected sexual activity and the need for appropriate prevention interventions.

Geographically, most births to HIV-positive mothers occur in Regions 1 and 2 (the New Orleans and Baton Rouge regions); however, births to HIV-positive mothers have occurred in all parts of the state (Figure 44).

Figure 45 highlights HIV prevalence among black women who gave birth, as most HIV-exposed births (93%) occur in this population. Although Region II accounts for a smaller number of births to HIV-infected mothers than Region I (Figure 44), births to HIV-positive mothers in Region II made up a much higher proportion of all live births to black women than anywhere else in the state. In 2000, in the Baton Rouge region, approximately 1 in 63 black women aged 25–29 who gave birth had HIV infection.

Figure 43
Infants Born to Mothers with HIV Infection, by Timing of Diagnosis for Mother (N=498)
 Louisiana, 1999-2001

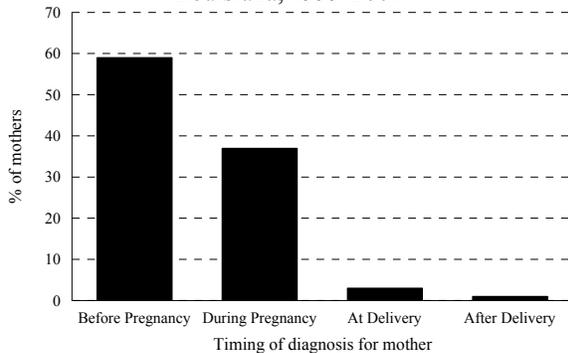


Figure 44
Infants Born to Mothers with HIV Infection, by Region (N=655)
 Louisiana, 1997-2000

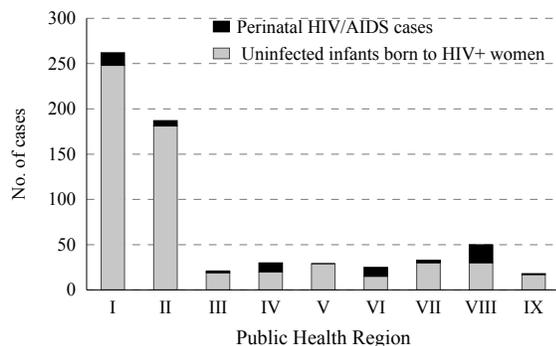
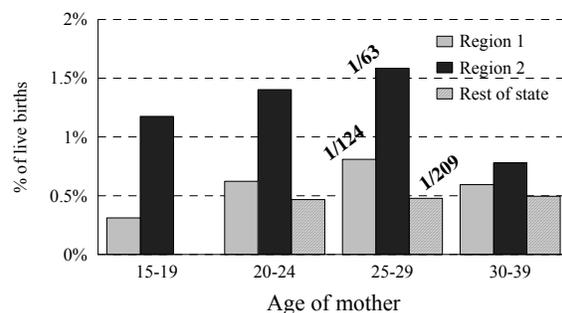


Figure 45
Percentage of Live Births to HIV-Infected Black Women
 Louisiana, 2000



HIV TESTING

Data on HIV testing patterns provide information that is helpful in focusing HIV counseling and testing programs. The data may also be used to help identify potential gaps in HIV surveillance data, which represent only persons who have been tested for HIV infection. HIV testing data are available from surveys conducted in the general population (BRFSS) and in high-risk populations (HITS and SOS), and from publicly funded HIV counseling and testing sites.

Testing in the General Population (BRFSS)

Overall in 2001, less than half (46%) of the persons surveyed in BRFSS reported having ever been tested for HIV (Table 21).

Persons who reported having had 2 or more sex partners during the past 12 months were more likely to have been tested for HIV than persons (particularly women) with only 1 partner.

Whites were less likely to have been tested than blacks or persons of other racial/ethnic groups.

In the age group 18–24 years, persons with 2 or more sex partners during the past 12 months were least likely to have been tested (only 37% had ever been tested). In contrast, among all persons in this age group (including those at lower risk), the reported rate of HIV testing during the past 12 months was higher than in the other age groups (48% had been tested). These data may indicate that HIV screening should be focused on persons aged 18–24.

Table 21. HIV testing in the general population, Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Ever tested, %		Tested, past 12 months, %
	Total ^a (n = 5,011)	≥ 2 Partners ^b (n = 117)	Total ^a (n = 1,942)
Tested	46	59	36
Sex			
Male	45	49	34
Female	47	76	38
Age group (yrs.)			
18–24	49	37	48
25–34	62	70	41
35–44	47	67	30
≥ 45 ^a	33	65	27
Race/ethnicity			
Black, not Hispanic	56	67	43
White, not Hispanic	41	50	31
Other	49	86	36

^aIncludes persons aged 18–64 years.

^bPersons with ≥2 partners includes persons aged 18–49.

Among men surveyed in BRFSS, the most common reason for being tested was a routine checkup; among women, pregnancy was the most common reason (Table 22). Only 8% of persons reported that they had been tested to find out whether they were infected. Among persons aged 18–24 years, pregnancy was the most common reason for being tested; most persons in all other age groups were tested during a routine checkup. More blacks, compared with persons of other races/ethnicities, had been tested during a routine checkup.

Table 22. Six most commonly listed reasons for HIV testing, general population (n = 678), Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Routine checkup, %	Pregnancy %	To learn HIV status, %	Job-related %	Hospitalization, %	Other %
Overall	30	18	8	7	7	7
Sex						
Male	35	1	8	9	6	9
Female	25	32	8	6	8	6
Age group (yrs.)						
18–24	30	36	10	4	1	6
25–34	26	22	9	8	4	9
35–44	25	9	6	7	11	4
≥ 45	41	0	6	10	15	9
Race						
Black, not Hispanic	39	19	10	7	4	7
White, not Hispanic	23	19	8	8	9	7
Other	28	11	5	9	3	12

Note. Percentages do not add to 100% because less commonly listed reasons are not included.

Most BRFSS respondents had been tested most recently at a private physician’s office or an HMO (43%) (Table 23). The second most common location was a hospital (23%). Responses did not differ by race, although slightly more blacks, compared with other racial groups, had been tested most recently at a hospital rather than at a physician’s office.

Table 23. Locations of HIV testing, general population (n = 670), Behavioral Risk Factor Surveillance System, Louisiana, 2001

	Private physician or HMO, %	Hospital or outpatient clinic, ^a %	Clinic or counseling & testing site, ^b %	Military site, %
Overall	43	23	17	6
Sex				
Male	40	22	13	12
Female	45	24	21	1
Age group (yrs.)				
18–24	40	18	31	4
25–34	45	21	18	7
35–44	36	28	10	8
≥ 45	50	29	5	4
Race/ethnicity				
Black, not Hispanic	36	28	25	4
White, not Hispanic	48	20	11	6
Other	43	22	12	13

Note. HMO, health maintenance organization.

^aIncludes emergency department.

^bIncludes health department or AIDS clinic, family planning clinic, STD clinic, community health clinic, and other public health clinic.

Testing in High-Risk Populations (HITS and SOS)

In 2001, HITS was conducted among persons at increased risk for HIV infection (IDUs, clients at STD clinics, and MSM) in New Orleans, Baton Rouge, and Monroe. More of the persons surveyed by HITS reported that they had been tested for HIV than had persons in the general population. More MSM (82%) indicated that they had been tested than had IDUs (55%) or heterosexual clients at STD clinics (60%) (Table 24). More female IDUs and heterosexuals said they had been tested than had male heterosexuals or IDUs. A higher proportion of white MSM reported that they had been tested than had black MSM. However, among IDUs, more blacks responded that they had been tested.

Table 24. Percentages of high-risk populations ever tested for HIV, HIV Testing Survey, Louisiana, 2001

	Men who have sex with men, % (n = 82)	Injection drug users (n = 85)	Heterosexual STD clients, % (n = 75)
Overall	82	55	60
Sex			
Male	82	52	51
Female	n/a	58	73
Race/ethnicity			
Black, not Hispanic	73	58	57
White, not Hispanic	86	43	100

Note. STD, sexually transmitted disease; n/a, not applicable.

Overall, 45% of high-risk persons surveyed in SOS reported that they had been tested for HIV during the past 12 months (Table 25), a percentage that is higher than that of the general population (36%) in the BRFSS survey. More of the women in SOS had been tested than had men. Testing rates were the same for whites and blacks.

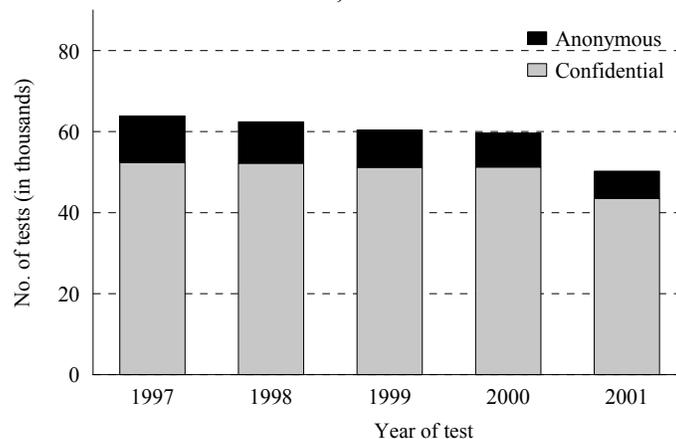
Table 25. HIV testing of high-risk persons (n = 5,655), Street Outreach Survey, Louisiana, 2001

	Tested, past 12 months, %
Overall	45
Sex	
Male	43
Female	47
Race/ethnicity	
Black, not Hispanic	45
White, not Hispanic	45

Testing at Publicly Funded Counseling and Testing Sites (Louisiana Counseling and Testing Program)

Currently, Louisiana has more than 150 organizations that provide publicly funded HIV counseling and testing services. These sites include Louisiana Department of Health and Hospitals clinic sites, including Office for Addictive Disorder clinics (drug treatment centers), Office of Public Health clinics (STD, family planning, prenatal and tuberculosis clinics); CBOs; community health centers; and mobile test sites. The number of HIV tests conducted each year at publicly funded counseling and testing sites decreased steadily, from a high of 63,849 tests in 1997 to 50,211 tests in 2001 (Figure 46). This decline in the number of tests may be due to diverse factors such as the implementation of risk-based testing criteria for clinic clients, decreases in funding, decreases in clinic census, and declines in STD rates.

Figure 46
Trends in HIV Counseling and Testing, by Type of Testing
Louisiana, 1997-2001



Louisiana Office of Public Health clinics offer both anonymous and confidential testing; however, most of the tests have been confidential. The proportion of tests that were anonymous decreased from 20% in 1997 to 13% in 2001. The characteristics of persons tested anonymously differ from those tested confidentially. Most of the persons who were tested anonymously were

white or male. More of the persons who were tested confidentially were female or black. Also, more older persons were tested anonymously; more younger persons were tested confidentially. However, this pattern may be due to the fact that more of the younger persons seeking an HIV test are black or female, whereas more of the older persons may be white or male. More than three fourths of all anonymous tests in 2001 were performed in CBOs (51%) or drug treatment centers (26%).

Overall, in 2001, 57% of the tests were provided for females, 61% for blacks, and 35% for whites. Most of the tests were performed for persons aged 13–29 years (65%). Nearly half (44%) of the HIV tests were performed in STD clinics, and another 14% were performed in CBOs (Table 26). The demographic characteristics of the persons tested were relatively stable during 1997–2001.

Table 26. HIV Counseling and Testing data, by demographics and type of test, Louisiana, 2001

	Confidential		Anonymous		Total	
	No.	%	No.	%	No.	%
Sex						
Male	17,004	39	3,984	59	20,988	42
Female	26,471	61	2,384	35	28,855	57
Unknown	0	0	368	6	368	1
Race/ethnicity						
White, not Hispanic	14,084	32	3,515	52	17,599	35
Black, not Hispanic	27,943	64	2,544	38	30,487	61
Hispanic	828	2	134	2	962	2
Other	610	1	115	2	725	1
Age (yrs.)						
<5	47	<1	398	6	445	1
5–12	77	<1	19	<1	96	<1
13–19	10,480	24	596	9	11,076	22
20–29	19,550	45	2,269	34	21,819	43
30–39	7,416	17	1,768	26	9,184	18
40–49	4,180	10	1,212	18	5,392	11
≥ 50	1,724	4	473	7	2,197	4
Unknown	1	<1	1	<1	2	<1
Public health region						
I	11,097	26	2,522	37	13,619	27
II	4,992	11	996	15	5,988	12
III	3,492	8	715	11	4,207	8
IV	3,955	9	1,098	16	5,053	10
V	3,296	8	151	2	3,447	7
VI	3,120	7	81	1	3,201	6
VII	3,840	9	576	9	4,416	9
VIII	7,124	16	270	4	7,394	15
IX	2,559	6	327	5	2,886	6
Site						
STD clinic	21,329	49	875	13	22,204	44
Community-based organization	3,599	8	3,464	51	7,063	14
Family planning clinic	5,381	12	71	1	5,452	11
Drug treatment center	3,318	8	1,753	26	5,071	10
Prenatal, OB/GYN	4,855	11	65	1	4,920	10
TB clinic	2,443	6	44	1	2,487	5
Parish health clinic	828	2	76	1	904	2
Community health clinic	399	1	157	2	556	1
Field visit	381	1	155	2	536	1
Prison or jail	5	<1	0	0	5	<1
Other	937	2	76	1	1,013	2
Total	43,475	100	6,736	100	50,211	100

